# That Was the The Year That Was

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Pardon me for speaking frankly, but what an insipid year it's been! Some years are without doubt landmark years, that declare their achievements in bold style. In the relatively short history of the Internet each year has seen some form of technology or business initiative take form.

But for 2003 is quite hard to make that claim of a landmark year. Lets take a look at what didn't happen in 2003.

2003 was not the year when IPv6 took off. Its not that anything bad has happened to the positioning of IPv6, nor to its eventual prospects for deployments.It just that nothing really much happened at all in the V6 domain. V6 has not exploded into mass-market deployment, nor has it waned into eventual insignificance. V6 does have a future, and at some time we will see a definite movement to realize that - its just that this did not eventuate in 2003.

2003 was evidently not a good year for Internet Governance. Throughout 2003 there were preparatory meetings for the World Summit of the Information Society (WSIS). A lot of effort was put into various texts, espousing the various roles of governments, international treaty organizations, private enterprise and other interested parties. All this effort was leading up to the big bash at Geneva in December, where, it was hoped, Definite Progress would be made. What was apparent at the Geneva meeting is that there is not particular common understanding of the nature of the Internet as a public utility, and perhaps no real common understanding of what a public utility is these days. The deregulationists argue that a free market is the most efficient distributor of a public utility, and the governance is a synonym for the interaction of providers and consumers in an open market. The regulationists argue that any market is subject to manipulation and distortion, and the public interest must be protected through intervention via regulation and legislation. A public utility must be managed through public enterprise, they argue, if its value and utility is to be preserved. So we saw yet another replay of these two world views one week in Geneva in December, in the context of the question of 'how should the Internet be governed?'. And the outcome? Another working party will be spun up, whose task, it would appear, is to fund an agreeable definition of the term 'Internet Governance'. If doing nothing is preferable to doing harm, then this is a reasonable outcome. But I would offer the view that its not enough. It fails to recognize that the fundamental drive behind the rapid uptake of the Internet was that of progressive deregulation of the telecommunications industry, and that the Internet has thrived, technically and socially in an environment of vibrant private sector competition. Maybe by the time of WSIS II in 2005 there may be a better understanding of this role of private enterprise operation of the Internet as a public utility from the public sector. Or maybe not. Either way 2003 as not the year for Internet Governance!

What about the evolution of the Internet business environment? Again, 2003 has not been a landmark year here either. The Internet Service industry is a highly diverse sector, spanning major carriers through to small specialized service providers. The larger players have not

squeezed out the smaller players, or even each other. The smaller players have not been able to innovate with new forms of service offerings so that the smaller players have not been able to put a large distance between themselves and their larger competitors. The result is that in many parts of the world the level of competition to service the customer remains high. In comparing the start of 2003 with the picture at the end of the year, not much has changed at all.

The evolution of the content economy also seemed to take a rain check for 2003. The 'free to air' content models apparently continue to languish as a consequence of a weak revenue model from advertising. Paid content still has yet to fin d a solid market, and while some forms of pay-per-view or subscription-based content is found on the net, it appears to remain a niche market. Yes, there are a few notable successes in the content industry, but on the whole this remains an industry still looking for a compelling means of interacting with its potential consumer base, and 2003 really did not see any major changes in this picture.

And what about the underlying technologies of the Internet? Again it looks like a year of steady effort without any spectacular achievement. We saw the introduction of 10 Gigabit Ethernet technology in to the market in 2002, and it would appear that this is the first instance where the escalation of demand and the matching reduction in price for the technology has not followed the same aggressive timetable for its 1Gigabit of 100Mbit predecessors. Yes, modem-based access continues to decline as the DSL-based deployments press on inexorably. But it will still be some time before the economics of the access industry make widespread use of fibre to the home a reality in even the more mature markets.

And at the application layer it still seems like the hunt for the next so-called 'killer application' continues. Considering that the Web is now over a decade old, you'd have thought that the term 'killer application' would been consigned to the terminology graveyard, but it seems that in some corners of the Internet the quest continues. That does not mean that there haven't been some very neat applications developed in the past year - there certainly have. But none of them can be classed as powerful generic platforms in the manner of the Web. Maybe its a case of a mismatch of a grossly inflated level of expectation as compared with our ability to sustain fundamental innovation at accelerating rates.

No, it was not the year of Voice over IP. A few more national regimes started looking at the implications of deploying ENUM within their national country code during 2003, but it still appears that ENUM poses more questions than answers when you try and generalize ENUM technology into a more generic form of call redirection.

Sadly, it was not the year that we managed to get serious about securing the Internet's infrastructure and application domain. It is somewhat frustrating to be in a position that we can see the technologies we need to use, and understand the generic way in which they need to be used, yet still have not managed to translate this into useful deployment.

While some things have got a bit better, and some things have not managed much change in status, other aspects of the Internet had continued to deteriorate. The level of spam has risen from the annoying to the downright aggravating, and the associated level of hostile probes and attacks on Internet-connected systems further fuels the concern that we really have not yet found good responses to these threats.

So that was 2003.

Oh well, we've always got next year to do better!

## Disclaimer

The above views do not represent the views of the Internet Society, nor do they represent the views of the author's employer, the Telstra Corporation. They were possibly the opinions of the author at the time of writing this article, but things always change, including the author's opinions!

## About the Author

GEOFF HUSTON holds a B.Sc. and a M.Sc. from the Australian National University. He has been closely involved with the development of the Internet for the past decade, particularly within Australia, where he was responsible for the initial build of the Internet within the Australian academic and research sector. Huston is currently the Chief Scientist in the Internet area for Telstra. He is also the Executive Director of the Internet Architecture Board, and is a member of the APNIC Executive Committee. He was an inaugural Trustee of the Internet Society, and served as Secretary of the Board of Trustees from 1993 until 2001, with a term of service as chair of the Board of Trustees in 1999 û 2000. He is author of a number of Internet-related books.